



# PROCEEDINGS

of the  
American Society  
of  
Civil Engineers

2 PARTS

PART 2

Vol. 56

FEBRUARY, 1930

No. 2

## John Francis Coleman

**J**OHN FRANCIS COLEMAN, the sixty-first President of the Society, was born in Jefferson County, Miss., and received his formal education in the public and high schools of New Orleans.

Instead of attending college, Mr. Coleman in 1884 plunged into the jungles of Guatemala as Rodman for the Ferrocarril del Norte. Railroad engineering appealed to him, and upon returning to the United States in 1885 he worked his way up from Rodman to Resident Engineer in three years on the location and construction of the Kansas City, Memphis and Birmingham Railroad.

Having proved his mettle, Mr. Coleman set out, apparently, to amass a fund of experience. During a preliminary period from 1888 to 1900 he occupied various positions, of increasing importance, in railroad work, Mississippi and Ohio River hydraulics, construction of various plants, river terminals, a dam on the Sabine River, and as Principal Assistant City Engineer of New Orleans. He also had during this early period a taste of private practice, both as partner in a firm and by himself.

In 1900 he commenced the present phase of his work by committing himself definitely to consulting practice.

The variety and richness of Mr. Coleman's experience make it difficult to name the particular field in which he is considered an expert. In port development, drainage, and difficult foundations he has an enviable reputation, and his record includes also very extensive railroad work, industrial plants and villages, public utility valuations, steel and



JOHN FRANCIS COLEMAN  
*President Am. Soc. C. E.*

concrete structures, and park developments. Various harbor and port boards have sought his services as consultant, notably New Orleans, La.; Jacksonville, Fla.; Mobile, Ala.; Charleston, S. C.; and Corpus Christi and Houston, Tex. His opinion is sought and highly respected on the hydraulics of the Lower Mississippi, a problem which he has studied continuously since youth.

In describing New Orleans foundations as "difficult", there is no exaggeration, for the underlying soil is all part of the Delta of the Mississippi and is made up of silt and other water-borne material. Deep drillings have never yet reached bedrock. Mr. Coleman is rated as an expert in founding tall and heavy

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## The Annual Meeting

**C**OPY for this issue goes to press while the Annual Meeting is still in progress. In spite of frowning weather, with fog and rain to greet the first arrivals, the registration seems to be about normal. The various sessions are being well attended, and the corridors are just as full of lively conversation as in the past.

Details will have to wait until there is time to collect the data and abstract the papers, which will probably be done in time for the March Proceedings. Apparently, it will be possible to report a continuance of the usual high interest in the Annual Meeting.

## Milwaukee and Boston

**F**OLLOWING the Milwaukee and Boston Quarterly Meetings of the Society, questionnaires were sent to all members resident within the region where each was held, asking for detailed comment on meetings in general and these sessions in particular. The Meetings and Publications Committee has digested many interesting items from a study of 438 replies, a return of about 35%. A very few of the details surveyed deserve notice here.

Each questionnaire contained the three questions: "Are technical sessions too many, too long, or too technical?", thus allowing 1,314 possible answers. In spite of this opportunity to express opinions, only 112 checkmarks indicated that the sessions were too "heavy". In fact, 30 votes called for even greater intensity along these lines. Therefore, this phase of the meetings does not appear to excite the membership unduly.

Out of 16 topics suggested as possibly desirable for the sessions, covering the social as well as the professional field, the first six preferences out of 2,170 were:

Technical excursions	292
Exhibits of engineers' work	249
Exhibits of equipment	202
Exhibits of materials	192
Professional topics	192
President's address	184

The members are little concerned with the form of the technical papers (that is, lectures *versus* debates), or whether or not they take part in discussions. A list of preferred subjects for these papers is led by construction and structural work, with one-quarter of the votes between them; but most of the other choices are so well balanced that it is a safe conclusion that interest cannot be confined within any one field if the members are to get what they want.

Construction	238
Structural work	191
Highways	142
City planning	124
Sanitary engineering	118
Power	108
Railroads	108
Waterways	107
Surveying	66

1,202

## Romance and the Engineer

**R**OMANCE is never very far from the life of the engineer, and often plays such an intimate part in his daily life that he may not "see the forest for the trees."

Authors have been quick to seize this phase of life in the profession as desirable material for their stories, but few of them have given as great prominence to an engineering feat as has one author referred to in the quotation below.

Charles Neil McDonald, Member, died July 5, 1929, and in the memoir published in Part I of this issue are found the following paragraphs:

"In 1908, his activities carried him into the Far North. He associated himself with the Copper River and Northwestern Railway Company which was being extended into the interior of Alaska, and was placed in charge of all the bridge construction on that line.

"This work, which included the famous Miles Glacier Bridge and the Kuskolima Cantilever, was crowned with notable success in the face of most adverse circumstances. Operations were carried on far from a base of supplies; the season of the

year in which climatic conditions were favorable for construction was limited to only a few months; and the work had to go on during the long stormy winters of the Copper River country and in temperatures almost unbelievably low.

"Large masses of ice are discharged from Miles and Child's Glaciers into the Copper River during the summer months, and for that reason the Miles Glacier Bridge which crosses that stream was originally designed for cantilever erection. To advance the opening of the railroad a full year, however, the plan was changed, and it was decided to carry on substructure work during the winters and, at the same time, to erect the spans on falsework supported on ice. The plan was a success. The ice moved out in an unusually early spring thaw just twenty minutes after the bridge was self-supporting. This dramatic incident is well described in Rex Beach's novel, 'The Iron Trail'."

## Section Scholarship

**M**ANY of the Local Sections have been sponsoring Junior memberships for selected individuals of the Student Chapters at near-by engineering schools, but the Louisiana Section seems to be the first to institute a scholarship for the full four-year course. The membership idea is not to be discontinued, but this new project is to be an additional activity.

The following is extracted from a recent letter by C. M. Kerr, President of the Louisiana Section, describing the plan:

"Several years ago the Section decided to award annually a Junior membership in the Society to the outstanding graduate in Civil Engineering at Tulane University and at the Louisiana State University. We thus proposed to form a nucleus for Junior Members at these two Universities and in addition, each year, increase our membership by at least two. In this manner, we also immediately turn back to the Society 30% of the sum contributed to our Section.

"Along the same line of activity, this year, having accumulated a sufficient fund to defray the expenses of a scholarship for a four-year course, the Section at its annual 1929 Meeting decided to award a scholarship to a student of Civil Engineering at either Tulane University or Louisiana State University. The award is to be the Louisiana Section, American Society of Civil Engineers Scholarship, only one scholarship to be currently in effect.

"With these two classes of awards we feel that we are instilling in the embryo engineer the thought of the prestige, aims and ideals of the Society at the very beginning of his technical studies and upon his entrance to practice, perhaps the most critical periods of his career."

## Chapter Reports

**T**HIS is the season of annual reports from the Student Chapters of the Society, two of which have attracted attention because of their make-up as well as their contents.

The Agricultural and Mechanical College of Texas presented a folder containing 21 pages, the work of Mr. S. A. Roelofs, Publicity Officer for the Chapter. The statistics of each meeting occupied a separate page, supported by clippings of the newspaper publicity and other data, all neatly mounted. A list of members was given, and the exhibit closed with a large photograph of the Christmas Banquet of the Chapter.

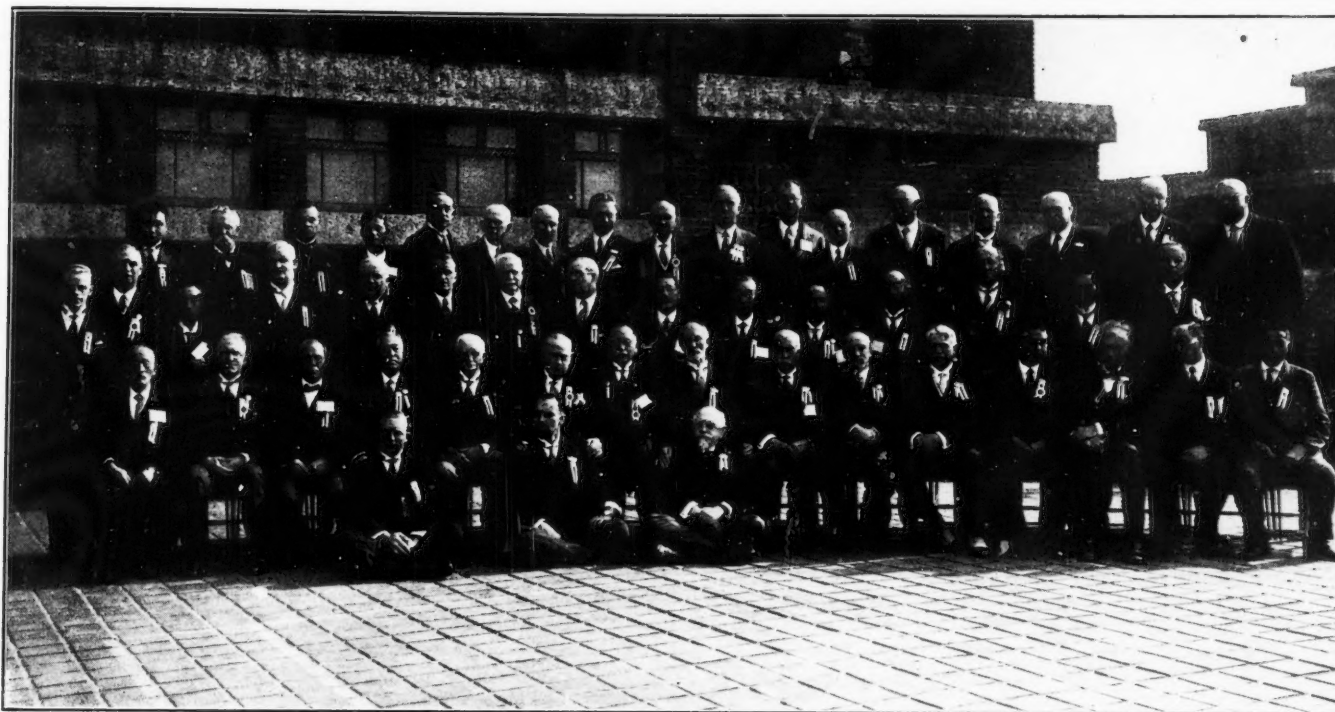
The statistical data of each meeting contained the date, number of members, faculty, and guests in attendance, name of speaker, subject, and purpose of the meeting. Under "Purpose of Meeting" was noted some live issue, generally the stimulation of interest in a future event on the Chapter program. These meetings must have been good as attested by the record of attendance: 37, 41, 43, 45, 65, 71, 73, 80.

The other notable report was from the University of Illinois Chapter. This 22-page folder contained a formal written statement by the Secretary, Mr. M. T. Chinn, accompanied by several products of the newly created Publicity Committee. These exhibits included copies of "The Illini A.S.C.E.", a four-page leaflet published once each semester to broadcast programs, data on speakers, officers, membership lists, etc., a handbill used in the membership campaign, and attractive post-card notices of meetings.

The average attendance at regular meetings was 132, but in addition 400 attended one lecture, and 1600 another. Membership in December totaled 321.

Many other Chapter reports might have been mentioned as they were interesting and neat, reflecting painstaking effort on the part of the Secretaries. The two noted above, however, are particularly good illustrations of the results obtainable through the work of Publicity groups. Chapter officers may well consider enlisting the aid of such talent (which exists in every college unit) to increase the effectiveness of the Student Chapter.





*Japanese and American Members of the American Society of Civil Engineers  
present at a luncheon at the Imperial Hotel, Tokyo, November 5, 1929*

## Construction Division

*By W. J. Barney*

*Chairman Executive Committee*

*(Concluded)*

*Manuals*

A NUMBER of the Committees have made several progress reports, and their work is sufficiently advanced to encourage the expectation of a Manual on Construction Plant and Methods in the near future. The following résumé of each Committee's work to date gives also the points yet to be covered by it, according to the outline issued by each Committee at the beginning of the work.

**Committee on Road Building:** This Committee presented a most comprehensive outline about a year ago and followed this up with an excellent report, covering about a third of its outline, at the Milwaukee meeting. So far it has reported on (1) choice of material plant site; (2) layout of material plant structures; (3) use and arrangement of haulage equipment to and from material plant; (4) characteristics of central mixing plant. The following subjects must still be covered according to the Committee's outline: (1) Grading operations; (2) sub-grade preparation; (3) placing concrete; (4) shoulder construction; (5) back slope, ditches, and intersections.

**Committee on Hydro-Electric Installations:** This Committee has covered the subject of water control and the use of coffer-dams, and at the Milwaukee meeting reported quite fully on the methods and equipment used in erecting power plant machinery, such as water-wheels, generators, etc. It has touched only slightly on such subjects as (1) camps; (2) power supply; (3) transportation; (4) mixing plants; (5) concrete placing equipment. All of these form good subjects for discussion in specific terms.

**Committee on Steel Buildings:** This Committee has covered in its report the following principal subjects: (1) Stiff legs *vs.* guy derricks; (2) step-by-step method of handling derricks; (3) handling steel; (4) signaling systems; (5) scaffolds; (6) pin-connected trusses; (7) placing steel in basement before excavation; (8) plant layout; (9) equipment list. This report is practically complete.

**Committee on Concrete Buildings:** This Committee has reported on (1) central mixing plants; (2) handling concrete and materials by belt; (3) analysis of a building concrete plant. It has yet to cover the subjects of (1) mixing plant at buildings; (2) methods of conveyance; (3) forms; and (4) methods of placing reinforcement.

### *Committee on Concrete Bridges:*

This Committee, after presenting a very complete outline, amplified this at the Milwaukee meeting by a report on (1) progress schedule; (2) choice of equipment; (3) use of equipment. There are still to be covered (1) development of site for work; (2) plant operations on viaducts; (3) plant operations on concrete bridges having shallow subaqueous foundations; (4) plant operations on concrete bridges having deep foundations and pneumatic caissons.

### *Plans for 1930*

It is hoped to advance all the Committee reports sufficiently to warrant at least their preliminary presentation in manual form. This will entail soliciting criticism on the reports as they now stand. This will immediately be undertaken with the idea of issuing a manual by June, 1930.

It is planned to hold a meeting at the Summer Convention in Cleveland.

In closing, on behalf of the Construction Division and its work, your Executive Committee strongly bespeaks more volunteer interest and activity in the reports and work of the various Committees. Members are particularly urged to read the

various papers and reports as published in the Proceedings and to communicate their enlargements and improvements of these to the Chairman of the Division. It is only in this way that our work can become truly representative of the most modern methods in construction.

## February Proceedings

**V**ARIETY seems to best describe the group of papers featuring the February Proceedings. Both design and construction are covered, while the fields of sanitation, structural engineering, and waterways are represented.

One of the outstanding developments in the sanitary field has recently taken concrete form in the Middle West. This "Baldwin Filtration Plant, Cleveland, Ohio" is ably described by a series of members, including J. W. Ellms, G. W. Hamlin, A. G. Levy, and J. E. A. Linders. Their joint work is quite comprehensive, including history, general description, hydraulics, design, construction, general equipment, completion, and contracts and costs. Although special emphasis is given to the design and construction features, the discussion of costs is properly emphasized.

"The Laminated Arch-Cone Type of Dam", as described by Fred A. Noetzli, M. Am. Soc. C. E., seems to be a new phase of an idea that has been used somewhat previously. The gist of this is in placing the joints so that the entire mass is divided up in the form of two or more laminæ, with tarred burlap or other joints, thus separating the structure into a series of more or less concentric shells. These vary in height, decreasing down stream. Among the advantages claimed are those of economy and control of seepage flow. An independent feature of Mr. Noetzli's design is the use of the "forked abutments" which narrow the effective span of the arch and promote symmetry of the profile.

A series of inter-coastal canals has long been in prospect along the Atlantic. One of the first of these to be built is "The Chesapeake and Delaware Canal", as described by Earl I. Brown, M. Am. Soc. C. E. In reality the new waterway is a modernization of the old canal; the alignment is shortened and straightened; the locks have been removed to bring it down to sea level; and the depth has been

increased. Colonel Brown gives a complete and interesting history of the work with special emphasis on the most interesting methods of dredging and excavation. The complete cost data included should prove most valuable.

Final sections of the February Proceedings include discussions and memoirs. In all, 13 discussions on 9 current papers are included. The memoirs number 16 all told.

## John Francis Coleman

(Continued from page 1)

structures in such material, a reputation which any engineer would be proud to enjoy.

Another interesting job was the location of the sawmill, logging railroad, and town of Bogalusa, La., which has proved to be one of the largest sawmill towns in the world. It is situated on the New Orleans, Great Northern Railroad which Mr. Coleman had previously located and built.

During the World War he closed his office in New Orleans and became General Superintendent in charge of layout and construction of the shipyard and town of the Chickasaw Shipbuilding and Car Company, on Mobile Bay.

In the July, 1927, "American Magazine" there appeared an interview with Mr. Coleman, entitled "Quicksand". In the course of an unusually clear description of the nature of that material he related how he was once caught in a stream-bed by the treacherous stuff, and was rescued just as his shoulders were awash. It was characteristic of the unruffled nature of the man that the experience was taken as all in the day's work, and the survey went ahead immediately without any heroics.

Another anecdote from a different source relates that while in charge of locating the New Orleans, Great Northern Railroad, Mr. Coleman showed extraordinary skill in locating an economical line with several 20-mile tangents. This feat led his client to suggest that perhaps Coleman didn't know how to run a curve.

At the time of the tragic *Norman* disaster, Mr. Coleman was seen calmly smoking a cigar just before the accident. It happened that when the boat finally turned over, he slid into the river so gently that his hat remained on his head and scarcely got wet. Quite unperturbed, he

swam, fully clothed, until nearly exhausted, when a life-belt providentially bobbed up under his arm. Seeing no one near-by who needed it, he floated on until picked up by a negro boatman. They went ashore and built a fire, in front of which Mr. Coleman dried out some water-soaked cigars. When found later that night by a searching party, he was enjoying his smoke, and was accused of having smoked continuously during his swim.

It has not been possible here to name more than a few of the projects with which Mr. Coleman has been responsibly identified. They may be inferred from the fact that he is a Past-President of the American Institute of Consulting Engineers as well as of the Louisiana Engineering Society.

In the American Society of Civil Engineers he has served both as Director (1915-17) and as Vice-President (1918-19), during which terms he was a member of the Finance and Publications Committees, as well as several Special Committees. Of late years he has been a member of the Committee on Papers and Specification and the Committee on Piles and Pile-Driving of the Waterways Division.

He is also a member of the American Railway Engineering Association, and the Permanent International Navigation Congress, as well as director or trustee of a number of non-professional institutions.

In spite of a very busy existence, Mr. Coleman finds leisure to enjoy golf and automobiling, and is very fond of books, being known to his friends as an unusually well-read man. Modest almost to a fault, he is also known as possessing the quiet, thoughtful confidence of a man who, while making his professional way through his own efforts, has sensed and then identified himself with the finer things of life.

The long succession of capable and devoted leaders of the Society has been happily projected into 1930 through the selection of the new President. Already experienced in Society affairs, and against a background of fine accomplishment in an unusually broad field of practice, he is admirably fitted for this exacting post. In a year when many important decisions are to be made, the Society has done well to entrust its guidance to John F. Coleman.